Hexadecimal Notation

Representation

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Hexadecimal Notation

Need:

- ✓ Bit patterns are large –Streams
- ✓ Understanding large sequence is difficult for humans
- ✓ We use Shorthand notation

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Representation Motivation

- ✓ It represents 4 bits as single symbol
- ✓ Motivation: computer sequence is multiple of 4's

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Representation

Bit pattern	Hexadecimal representation
0000	0
0001	1
0010	2
0011	3
0100	4
0101	5
0110	6
0111	7
1000	8
1001	9
1010	A
1011	B
1100	C
1101	D
1110	E
1111	F

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Lets solve some real problems

Q#5 (b) on page 38
Binary to Hexadecimal
1110100001010101010000101 11
1110 1000 0101 0101 0001 0111

Q#6 (d) on page 38
Hexadecimal to Binary
0100

Bit pattern	Hexadecimal representation
0000	0
0001	1
0010	2
0011	3
0100	4
0101	5
0110	6
0111	7
1000	8
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1010	A
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Summary

Hexadecimal Notation

- ✓ Motivation
- ✓ Why 4 bits
- ✓ Representation
- ✓ Examples

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